

develop INSIDER



Behind the scenes at Europe's
leading games studio

 **CRYTEK**®



Introduction

IN JUST TEN SHORT years, Crytek has achieved more as a studio than most could hope for in a lifetime.

"From the beginning it was our aim to be world-class," say founders the Yerli brothers. "By putting the gamer's experience in the centre of everything we do, we want to make the world a better place and bring greater gaming to the world."

As its ten-year anniversary draws near, Crytek has certainly succeeded in the goal that defined its gestation.

Now the studio boasts a catalogue of well-renowned titles, including hugely popular releases like *Crysis* and *Far Cry*. The *Crysis* series of games in particular are still regarded as prime examples of the cutting-edge of gameplay and games development, showcasing the technical muscle of cutting-edge PCs.

Not content to limit itself to developing games with its powerful proprietary tech, Crytek has also garnered a reputation as a leading provider of game engines.

The third iteration of CryENGINE is one of the most powerful tools on the market, and offers developers of console and PC games one of the most flexible, highly organised genre-agnostic pieces of tech available on the market.

"We haven't as yet shown most of what is possible from CryENGINE 3 within a full game," says Carl Jones, director of global business development for CryENGINE. "But developers can see from our own demos that it is possible to build incredibly realistic environments within CryENGINE 3."

Crytek has also demonstrated impressive expansion across the decade. Having started in Coburg in 1999, the company now also owns premises in Budapest, Frankfurt, Kiev, Nottingham, Sofia and Seoul.

Over the next few pages, we look at the culture that has made Crytek such a popular employer and closely watched company, plus we speak to the people who make its studios so successful...

Q&A: The Yerli brothers

Ten years have passed since Cevat, Avni and Faruk Yerli founded Crytek. Here, the trio shed light on the company's progress and their hopes for its future...

As you draw close to your tenth anniversary, what do you think is your greatest achievement as a company over that period?

Very interesting question. Let's put it this way: the journey is the reward and we have come a long way. It's the 'Crytek way' that is our biggest achievement. Our games and our technology have gained us the respect of gamers and our industry. We worked very hard to achieve this, and we built that company and the whole Crytek family on the three values: trust, collaboration and respect.

Those values define and guide our everyday work. We trust our vision, our dreams and the talents of our Crytek family, and believe that we're all heroes in our own right. Collaboration enables our teams to make or break goals. Our heroes strive to contribute in ever more meaningful ways to our gamers, our communities and industry. That, in our eyes, is the biggest achievement of Crytek so far.

Why did you decide to start to license out your internal tech?

To be honest, at the beginning that wasn't a priority for us. We just wanted to have a proprietary engine for our games projects. The first companies contacted us in 2002, and said they wanted to license CryENGINE. That was a great honour for us and, after a bit of thinking, we started to establish our licensing business and just a short time later had several licensees.

Today, engine licensing is a very important part of our daily business. It continues to show us every day what the CryENGINE is able to do.

Crytek has always been devoted to the cutting edge. Placed as you are in that position, what do you expect to see from the next 'next-generation' platforms?

The new generation of consoles will definitely blow our mind. We'll experience not only all-new graphical fireworks but also a lot of impressive new functionality.

Our CryENGINE 3 is already next-gen ready and allows studios to develop cutting edge games for this generation and the next generation of consoles. It can deliver top-notch quality on all platforms now, and you can have a head start on development for the next generation. We want to be prepared for the future while also delivering for this generation.

What motivated your decision to expand into the UK?

The decision to acquire Free Radical came up at the end of 2008. The combination of our CryENGINE technology and the experienced, skilled team was more than perfect for us and was highly attractive. We think the team fits into our culture and strategy very well, as Free Radical has a proven track record in developing games on consoles and PC. We always planned to enter the console market and open a studio in the UK, and that was part of our strategy even before the acquisition.

What plans do you have for your UK studio?

When we acquired Free Radical, we were really impressed with the development talent they have and their console experience. What we expect is that the team will make kick ass games under the Crytek umbrella.

Are you considering establishing a new presence in any other countries?

Well, I think we currently have a very strong studio network with our studios

Crytek's founders, brothers Avni,
Faruk and Cevat Yerli



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in Budapest, Frankfurt, Kiev, Nottingham, Sofia and Seoul. We are always looking into all possibilities. But at the moment we are not actively looking for a new presence.

What makes a career at Crytek so special for your employees?

At Crytek we're always looking for talented and skilled developers who understand that making games is more than just a job. Everybody who joins us here at Crytek joins a highly motivated, talented and experienced team.

What attracts people to work at the company?

We're convinced that a good and healthy team in a unique culture is the key to success; it offers a lot to our employees. Besides a competitive salary and bonuses schemes, Crytek offers a very refreshing atmosphere in an multinational English-speaking team.

We also apply the 80/20 rule: our employees are allowed to use up to 20 per cent of their work time to pursue ideas outside their projects. In many cases people from different

departments are working together and carrying ideas further. Through this, we're killing two birds with one stone: we're holding the creative potential and the entrepreneurial spirit up, and in particular beginners can show their specialities, which helps us support them by specific education.

In addition to that, we also offer flexible work time, good health care benefits and relocation support. All in all, Crytek is a great place to work and we're always happy to welcome new members to our Crytek family.

“ We built the Crytek family on three values: trust, collaboration and respect. Those values define and guide our everyday work. We trust our vision and our dreams, and we believe that we're all heroes in our own right. ”

Crytek Across the World

Crytek UK

JOINED CRYTEK: 2009

KEY STAFF: Karl Hilton (studio manager)

In February 2009 Crytek purchased Free Radical Design, which built its reputation on the superb, tongue-in-cheek *TimeSplitters* series. The acquisition gave Crytek a team with a long heritage in the UK industry. That's something set to continue as the studio readies its first Crytek-branded title.

"We are currently conceptualising up an original IP that we hope will become a defining game series for the UK studio," reveals Karl Hilton, studio manager. "However, in reality, the opportunity to make any kind of original FPS genre game where we get to focus on the quality of both the multiplayer and single player experience is what drives people at the studio. We have a strong history of creativity here, and we want to take that forward with Crytek and the CryENGINE 3."

Many of Crytek's UK staff boast an impressive range of skills taken from the country's industry, and will be key to developing relationships within the sector both to import and export knowledge and expertise.

"We are particularly keen to get involved with education in the UK and build up good communications and knowledge exchange with universities and colleges," explains Hilton.

Karl Hilton



Crytek Germany

FOUNDED: 1999

KEY STAFF: Carl Jones (director of global business development, CryENGINE), Nick Button-Brown (director of business development), Heiko Fischer (director of human resources), Jens Schäfer (PR manager)

As Crytek's base of operations, the Frankfurt HQ is responsible for much of the company's output.

Subsequently, the studio plays home to the Yerli brothers and various others from the upper echelons of the organisation.

"Frankfurt offers a big cluster of innovative and creative companies, which makes it a very strong location for the creative industry and thus an excellent place for Crytek," says CEO and president Cevat Yerli.

"This cluster gives us the possibility for many partnerships, both on the vertical and the horizontal value chain. Frankfurt has various games companies such as developers, publishers, agencies and universities."

Originally based in Coburg, Crytek relocated in 2006, and since has established itself as one of the city's most highly regarded employers.

"We're already working on several projects we'd call 'dream projects,'" says Yerli. "In general we can't really commit to a certain genre or platform. Everything has its strengths and weaknesses, and we're trying our best to bring out the best in all games we're developing. It's our mission to always offer greater gaming experiences."

Crytek Hungary

FOUNDED: 2007

KEY STAFF: Kristoffer Waardahl (studio manager)

Developing games lead by the mantra 'on time, on quality', Crytek's Hungarian studio is focused on developing with the CryENGINE tech.

Currently hard at work on 'thrilling new IP', the Budapest-based team consists of a very experienced and passionate multinational workforce. While nothing is known about the project publicly, when speaking about the studio's opening Avni Yerli said: "It is a great way to widen our horizons and develop for a new gaming genre while continuing our company's strategic growth and expansion."

And as for the studio's home city? "Budapest speaks for itself," promises studio manager Kristoffer Waardahl. "It's a charming capital with stunning buildings, a soothing river, good public transport, lively cultural and night life, and a warm and welcoming atmosphere. It is the pearl of the Danube. It's easy to find a nice place to live, and food and services prices tend to be lower than in the EU in general."

Kristoffer Waardahl



Crytek Korea

FOUNDED: 2008

KEY STAFF: Young Mok Park (country manager)

Focusing its efforts on delivering the CryENGINE to the huge Korean market, Crytek's Korean operation was formed in 2008, and is rightly confident of the market it courts.

"Korea is one of the biggest markets for 3D graphics engines," explains Young Mok Park, country manager. "Because of the long history and experience in online games, Korean developers look for leading edge technology in all fields. These developers are hungry to create something that does not exist in the world yet."

As a country where online gaming is phenomenally popular, Korea also offers Crytek an unrivalled test bed with what many believe is the best internet infrastructure in the world. For that very reason, the Seoul-based studio continues to attract an array of hugely talented staff.

"We have many people from excellent backgrounds in the gaming industry," says Park. "Most people have worked on online game services and famous blockbuster games with great success. We have experts from various fields such as online service operation, QA, marketing, PR and network technology. This long experience and expertise will be great asset to Crytek, both now and the future."



Young Mok Park

Crytek Black Sea

JOINED CRYTEK: 2008

KEY STAFF: Vesselin Handjiev (managing director)

Having joined the Crytek fold in 2008, the Black Sea studio has become a cornerstone of the development community in the region.

"It is not that big an industry here, but still there are a dozen or so developers and companies involved in creating interactive entertainment software in some way," explains studio manager Vesselin Handjiev. "Crytek Black Sea, located in the capital city of Sofia, is the local leader and creates stability and career opportunities for the area's young and talented people."

"It can be said the Bulgarian gaming industry is not as old as it is in Western Europe or North America, but it is catching up fast."

Prior to its acquisition by Crytek, Black Sea Studios worked on renowned PC games *Knights of Honor* and *WorldShift*, and can take much of the credit for the progress of co-operative multiplayer modes in the RTS genre.

While the studio's current projects remain undisclosed, Crytek Black Sea is proudly ambitious. "Anything that really delivers in terms of replay value is a dream to work on," enthuses Handjiev, when asked about ideal projects. "We are working on a project that will deliver greater gaming experiences."



Vesselin Handjiev

Crytek Ukraine

FOUNDED: 2006

KEY STAFF: Max Dembick (studio manager)

In 2006 the Crytek Kiev team consisted of just six artists and two managers. Now, three years later, the team now amounts to over 50 people, including experienced programmers and game designers.

"Our team's contribution to *Crysis* project demonstrated the ability of the studio to start its own project," says Maxim Dembick, studio manager, adding: "Not even a new project, but brand new IP. This is where we are now – stay tuned for public announcements."

Crytek's Kiev office offers a confident, creative atmosphere to new employees, who can mix with a talented international team in a bright and large office space.

"We do not like silence here," admits Dembick. "It is always a bit too noisy in the main area, because people communicate verbally a lot. There are more than 50 of us at the moment but we still do our best to keep the family feeling within our office."

Crytek Kiev is currently very busy with a currently unannounced project, though Dembick is tantalisingly secretive – only letting slip that the team is "working on our dream project at the moment."



Maxim Dembick

CryENGINE 3

ANYONE WHO'S SEEN THE luscious *Crysis* screenshots on these pages or plastered over the internet barely needs an introduction to the CryENGINE.

Despite having been released almost two years ago, *Crysis* – and, by extension, the CryENGINE technology powering it – is so cutting edge that it's still seen as a high-end benchmark today.

But that was CryENGINE 2. Revealed early in 2009, the latest version of Crytek's behemoth engine – the cunningly-titled CryENGINE 3 – takes that industry-leading DirectX 9 and 10 engine to the next level: consoles.

"CryENGINE 3 is all about high performance on PS3, Xbox 360 and a broad range of PC specs," explains Carl Jones, CryENGINE's director of global business development. "We've always wanted to make products for consoles here at Crytek. Finally, the PS3 and Xbox 360 are able to run the quality and complexity of content we require, so making the engine run on these platforms was the logical step."

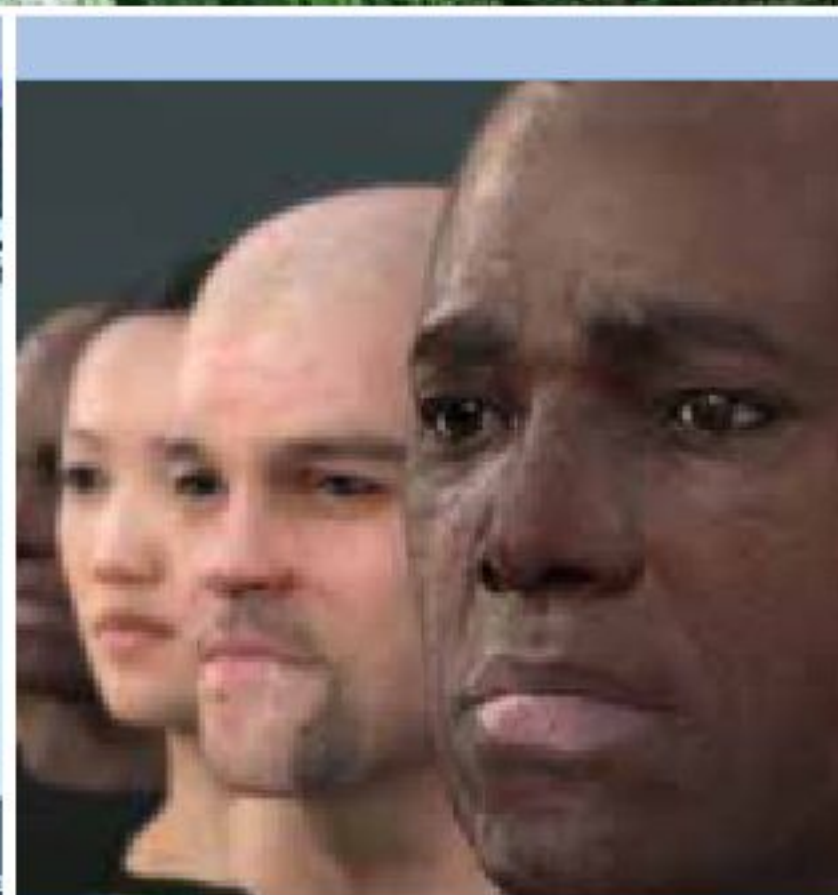
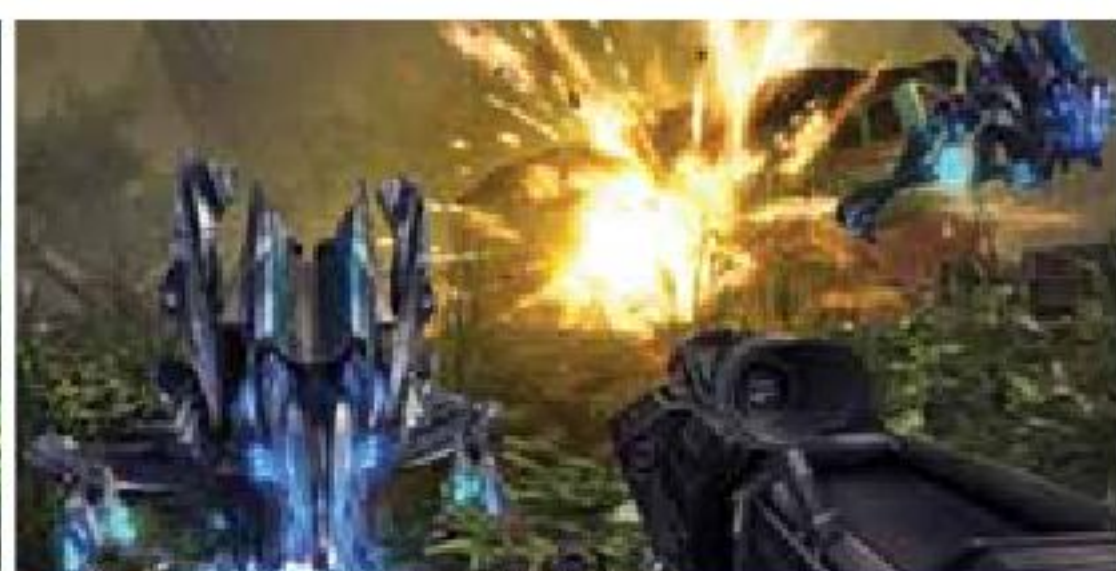
The engine's multiplatform support is so comprehensive, says Jones, that licensees won't need parallel development teams for each platform. But the focus hasn't just been on consoles: the engine also runs on a huge

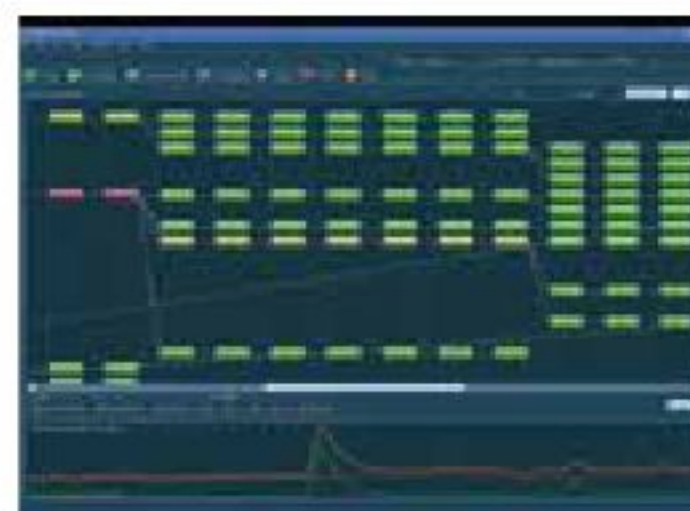


Crysis, and the technology powering it, is so cutting edge that it's still seen as a super high end benchmark almost two years after its release.

range of PC specs, ensuring that those with older rigs aren't left out in the cold.

The 60 R&D engineers dedicated to the CryENGINE's development haven't just been working on new platforms, though: the engine's Sandbox editor has been significantly updated to provide real-time editing and development on all platforms, plus hot-updates of assets to automatically bring source material changes instantly into the engine. Road and river building tools, plus vegetation and terrain placement tools, significantly facilitate the generation of startling





outdoor environments. Meanwhile, the engine's lighting system has been dramatically improved with a new deferred shading solution and real-time global illumination.

There's a lot to CryENGINE beyond just the graphics, though: there's a full modular AI system, for example, that offers characters with sensory systems, a visual scripting system, and dynamic pathfinding with automatic navmesh generation. A full proprietary multi-threaded physics engine is also included, with full interactive and destructible environments and advanced rope physics.

Don't think the tech is just limited to tropical island-based first person shooters either. "CryENGINE 3 is genre agnostic to a great extent," Jones explains. "Whilst there is not much point using the power of the engine to drive a casual game, we don't see a limit to the genres that could be built – as long as the

game requires incredible, high quality graphics and gameplay to match, CryENGINE 3 is perfect for the purpose."

“There's a lot to the CryEngine beyond graphics. It includes a full modular AI system, a multi-threaded physics engine and many other features.”

In fact, one other area in which the CryENGINE has traditionally been popular is the massively-multiplayer area, particularly in the Far East.

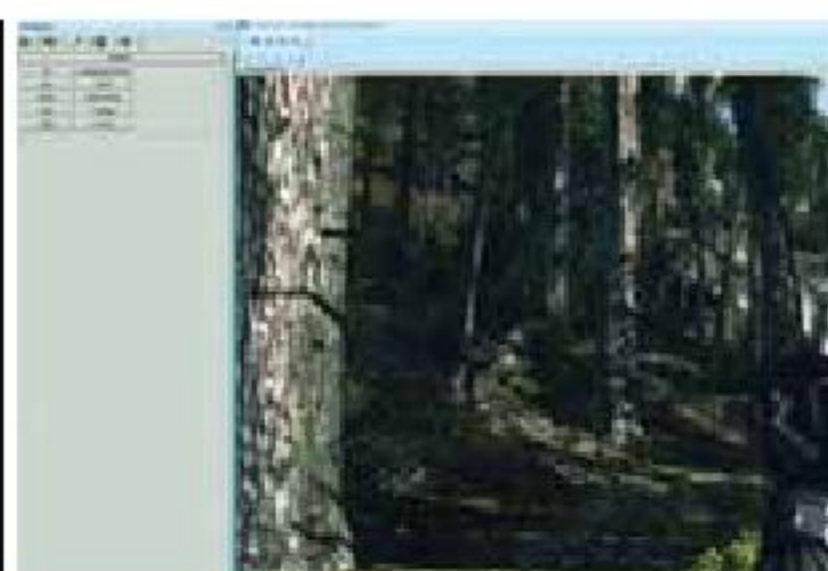
"Online gaming is without doubt the future of gaming," says Jones. "Where you draw the line at 'massively' multiplayer is a matter of opinion, but we can see most

– if not all – games involving communities of players in the future. Products such as NCsoft's *Aion* prove the power of CryENGINE technology for these types of games."

As such, the engine is firmly geared towards MMOs, with environment sizes limited only by development budgets: it features intelligent streaming technology that takes full advantage of the host platform, utilising data clustering, compression and multiple CPUs.

Essentially, CryENGINE 3 is a much more rounded engine than its predecessor, and one that will make significant headway in the middleware market.

Jones adds: "Developers looking to make truly awesome looking games on PS3, Xbox 360 and PC need look no further than CryENGINE 3. It is finally possible to achieve the quality of gaming seen only before in *Crysis* and *Crysis Warhead* on consoles."



SUPPORT STRUCTURE

One interesting aspect of the CryENGINE is how much effort Crytek has put into supporting it: in addition to all the usual documentation and forums, licensees receive a free week of on-site training from the developer's own in-house expert staff, known as the 'Start Up' week, which helps studios accelerate their initial experiences with the engine and get to the prototype stage much quicker. A further week's schooling can also be taken at the firm's Frankfurt headquarters, where they can work with the engineers that created the engine to ensure that they're using its full potential.

Crytek is also in the process of building up a network of local support offices through its various studios, with additional outlets in Japan, China and the US to be established this year.





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